

AMENDMENTS TO THE CLAIMS

Claims 1-39 (Canceled)

40. (Previously added) A method of producing a transgenic mouse whose genome comprises a disruption in an endogenous sulfotransferase gene, the method comprising:

- (a) introducing a targeting construct into a mouse embryonic stem cell, wherein the targeting construct disrupts the endogenous sulfotransferase gene;
- (b) selecting a mouse embryonic stem cell whose genome comprises a disrupted sulfotransferase gene;
- (c) introducing the mouse embryonic stem cell whose genome comprises the disrupted sulfotransferase gene into a blastocyst;
- (d) implanting the blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and
- (e) breeding the chimeric mouse to produce the transgenic mouse,

wherein the transgenic mouse, when homozygous for a disruption in the sulfotransferase gene, lacks expression of functional sulfotransferase and exhibits a behavioral abnormality.

41. (Previously added) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits aggressive behavior.

42. (Previously added) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits hyperactivity.

43. (Previously added) The method of claim 40, wherein the transgenic mouse, when homozygous for the disruption in a sulfotransferase gene, exhibits decreased anxiety.

44. (Currently amended) A transgenic mouse whose genome comprises a disruption in an endogenous sulfotransferase gene, wherein where the disruption is homozygous, the transgenic mouse lacks production of functional sulfotransferase and exhibits a behavioral abnormality.

45. (Canceled)

46. (Previously added) The transgenic mouse of claim 44, wherein the mouse exhibits aggressive behavior.

47. (Previously added) The transgenic mouse of claim 44, wherein the mouse exhibits hyperactivity.

48. (Previously added) The transgenic mouse of claim 44, wherein the mouse exhibits decreased anxiety.

49. (Previously added) A cell or tissue isolated from the transgenic mouse of claim 44.

50. (Previously added) A transgenic mouse comprising a heterozygous disruption in a sulfotransferase gene, wherein the transgenic mouse, upon breeding, produces a transgenic mouse homozygous for a disruption in a sulfotransferase gene, wherein the transgenic mouse when homozygous for the disruption in the sulfotransferase gene lacks production of functional sulfotransferase and exhibits a behavioral abnormality.

51. (Canceled)